

LAND RECLAMATION COMMISSION

STATE OF MISSOURI

P.O. BOX 176

JEFFERSON CITY, MISSOURI 65102

573-751-4041

Permit To Engage in Surface Mining

LAND RECLAMATION COMMISSION

ISSUES TO

IRON MOUNTAIN TRAP ROCK COMPANY

Pursuant to "The Land Reclamation Act," RSMo, 2001, and on conformity with the statements

In the application, a permit is hereby granted to engage in surface mining of

rhyolite in the state of Missouri. The extent of the

Proposed mining operation(s) will be on 54 acres, more or less.

The locations of the operation(s) under this permit is/are as follows: **Renewal & Amendment**

County	Section	Township	Range	Acres Renewed	Acres New	Total Acres	Site/Stream Name	Site Number
St. Francois	30, 31	35N	04E	34	20	54	IMTRC	0519

This permit may be suspended or revoked upon violation of any or all of the conditions set forth in "The Land Reclamation Act," RSMo. 2001, or in such rules and regulations as are promulgated pursuant thereto by the Land Reclamation Commission.

IN WITNESS WHEREOF I have hereunto set my hand this 12th day of March 2004



DIRECTOR OF STAFF
Land Reclamation Commission

Permit No. 0528
Effective Date 03/12/2004
Expiration Date 02/01/2005
MO 780-1122 (6-95)

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MISSOURI DEPARTMENT OF NATURAL RESOURCES
LAND RECLAMATION COMMISSION

PERMIT APPLICATION FOR INDUSTRIAL MINERAL MINES

MISSOURI LAND
RECLAMATION COMMISSION

P.O. BOX 176

JEFFERSON CITY, MO 65102-0176

NAME OF CORPORATION, COMPANY, PARTNERSHIP OR INDIVIDUAL IRON MOUNTAIN TRAPROCK COMPANY		DATE 1/27/04	
ADDRESS 2320 CREVE COEUR MILL RD.		CITY MARYLAND HEIGHTS	STATE MO ZIP CODE 63043
CONTACT PERSON BRIAN WRIGHT		TELEPHONE NUMBER (314) 344-0070	

CHECK ANY THAT APPLY:

☐ New Permit ☒ Permit Amendment ☐ Permit Revision ☐ Permit Expansion

SITE NAME OR NUMBER	ACREAGE (NEW)	LOCATION:
		COUNTY, SECTION, TOWNSHIP, RANGE (EAST OR WEST)
1. IRON MOUNTAIN TRAPROCK	20	ST. FRANCIS, S30,31 T35N R04E
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

ATTACH ADDITIONAL SHEETS IF NECESSARY

SIGNATURE OF APPLICANT [Signature]	TITLE ENVIRONMENTAL MANAGER	DATE 1/27/04
--	---------------------------------------	------------------------

Appeared before me this _____ day of _____, 20____,
to me personally known, who executed the above as their free acts and deeds.

NOTARY PUBLIC EMBOSSE	STATE Missouri	COUNTY (OR CITY OF ST. LOUIS) St. Louis Co
	SUBSCRIBED AND SWORN BEFORE ME, THIS 27th DAY OF January YEAR 2004	
	NOTARY PUBLIC SIGNATURE [Signature]	MY COMMISSION EXPIRES May 12, 2004
	NOTARY PUBLIC NAME (TYPED OR PRINTED) Tracy K. Oetker	
USE RUBBER STAMP IN CLEAR AREA BELOW		
<p>TRACY K. OETKER NOTARY PUBLIC - STATE OF MISSOURI ST. CHARLES COUNTY MY COMMISSION EXPIRES: MAY 12, 2004</p>		
FOR DEPARTMENT USE ONLY: APPROVED BY [Signature]	DATE APPROVED 2-10-04	PERMIT NUMBER 0528
		EXPIRATION DATE 2-01-05

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MISSOURI DEPARTMENT OF NATURAL RESOURCES
LAND RECLAMATION COMMISSION

PERMIT RENEWAL FOR INDUSTRIAL MINERAL MINES

MISSOURI LAND RECLAMATION COMMISSION
P.O. BOX 176
SPRINGFIELD, MO 65102-0176

NAME OF CORPORATION, COMPANY, PARTNERSHIP OR INDIVIDUAL <u>IRON MOUNTAIN TRAPROCK COMPANY</u>		DATE <u>1/27/04</u>	
ADDRESS <u>2320 CREVE COEUR MILL RD.</u>	CITY <u>MARYLAND HEIGHTS</u>	STATE <u>MO</u>	ZIP CODE <u>63043</u>
CONTACT PERSON <u>BRIAN WRIGHT</u>		TELEPHONE NUMBER <u>(314) 344-0070</u>	

FEES: COMPLETE SECTION I OR SECTION II

SECTION I. Fees: Open pit operators and those mining more than 5,000 tons of sand and/or gravel:

1. To compute the site fee complete the information below:

SITE NAME OR NUMBER (add a separate sheet for additional sites)	Mark each month that the site will be operated during the permit year	For sites operated less than six months per permit year pay \$150 For sites operated six months or more per permit year pay \$300
1. <u>IRON MOUNTAIN TRAPROCK</u>	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$ <u>300</u>
2.	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$
3.	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$
4.	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$
5.	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$
6.	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$
7.	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$
8.	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$
9.	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$
10.	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$
TOTAL SITE FEE		\$ <u>300</u>

2. Acreage Fee \$5 X 54 number of acres bonded \$ 2703. Annual Permit Fee \$ 5004. Total Fee (Add totals from 1, 2 and 3) \$ 1,070NOTE: If Total Fee exceeds \$2,500.00 then pay only \$ 2,500

SECTION II. FEES: Sand or gravel operators mining less than 5,000 tons per year:

1. Annual Permit Fee \$ 300

SIGNATURE OF APPLICANT <u>B. Wright</u>		TITLE <u>ENVIRONMENTAL MANAGER</u>	DATE <u>1/27/04</u>
Appeared before me this _____ day of _____, 20____, _____ to me personally known, who executed the above as their free acts and deeds.			
NOTARY PUBLIC EMBOSSEER SEAL	STATE OF <u>Missouri</u>	COUNTY (OR CITY OF ST. LOUIS) <u>St. Louis Co</u>	
	SUBSCRIBED AND SWORN BEFORE ME, THIS <u>27th</u> DAY OF <u>January</u> YEAR <u>2004</u>		
	NOTARY PUBLIC SIGNATURE <u>Tracy K. Oetker</u>	MY COMMISSION EXPIRES <u>May 12, 2004</u>	
	NOTARY PUBLIC NAME (TYPED OR PRINTED) <u>Tracy K. Oetker</u>		
FOR DEPARTMENT USE ONLY: APPROVED BY <u>[Signature]</u>		DATE APPROVED <u>2-10-04</u>	PERMIT NUMBER <u>052E</u>
		EXPIRATION DATE <u>02-01-05</u>	



FEB 4 2004

MISSOURI LAND RECLAMATION COMMISSION
P.O. BOX 176
JEFFERSON CITY, MO 65102-0176

MO 780-1007 (12-02)



MISSOURI DEPARTMENT OF NATURAL RESOURCES
LAND RECLAMATION COMMISSION
SITE INFORMATION FORM

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To be completed for each separate area of disturbance associated with mining operations.

SITE NAME OR NUMBER Iron Mountain Trap Rock Company		PERMIT NUMBER 0528
COMPANY NAME Iron Mountain Trap Rock Company		
COUNTY St. Francois	1/4 SECTION	SECTION 30 & 31
TOWNSHIP 35N	RANGE 4E	ACRES 124
RIVER OR STREAM NAME (FOR IN-STREAM ACRES)		
MINERAL COMMODITY Rhyolite		ESTIMATED TONS/YEAR (FOR GRAVEL SITES)

NAME OF LANDOWNER (ATTACH LIST IF MORE THAN ONE) Iron Mountain Trap Rock Company		
ADDRESS 325 Hwy W		
CITY Iron Mountain	STATE Missouri	ZIP CODE 63650
SOURCE OF RIGHT TO MINE (CHECK ONE): <input checked="" type="checkbox"/> MINERAL DEED <input checked="" type="checkbox"/> WARRANTY DEED <input type="checkbox"/> OTHER (DESCRIBE):		DATE OF AGREEMENT
		<input type="checkbox"/> LEASE <input type="checkbox"/> VERBAL AGREEMENT

MINERAL RIGHTS OWNER (ATTACH LIST IF MORE THAN ONE)		
ADDRESS		
CITY	STATE	ZIP CODE
SOURCE OF RIGHT TO MINE (CHECK ONE): <input type="checkbox"/> MINERAL DEED <input type="checkbox"/> WARRANTY DEED <input type="checkbox"/> OTHER (DESCRIBE):		DATE OF AGREEMENT
		<input type="checkbox"/> LEASE <input type="checkbox"/> VERBAL AGREEMENT

NOTE: Each site must be shown on a map and be included in a public notice and an approved mine plan.



MISSOURI DEPARTMENT OF NATURAL RESOURCES
LAND RECLAMATION COMMISSION
MINE PLAN

P.O. BOX 176
JEFFERSON CITY, MO 65102

TYPE OF PLAN (CHECK ONE):

☐ SHORT TERM, FOR ONE PERMIT YEAR

☒ LONG TERM, FOR PERIOD THROUGH DATE:

2035

COMPANY NAME **Iron Mountain Trap Rock Company**

DESCRIPTION OF SITE PRIOR TO LAND RECLAMATION COMMISSION PERMITTING (BY APPLICANT OR PRIOR OPERATOR), INCLUDING SOIL, VEGETATION AND TOPOGRAPHY.

See Exhibit A

OPERATION PLAN - 10 CSR 40-10.020(2)(D)1.

A. TOPSOIL

AVERAGE DEPTH OF TOPSOIL, PRIOR TO LAND RECLAMATION COMMISSION PERMITTING

4-12

INCHES

IS TOPSOIL TO BE SOLD OR DISCARDED OFFSITE?

☐ YES OR ☒ NO

DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL REMOVAL

Dozer and/or Rubber-tire Scraper and/or highlift and truck

DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORAGE AND PROTECTION

Stockpile topsoil to form berms and/or stockpiles. These will be seeded to establish vegetation and prevent erosion

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EXHIBIT A

Description of Site Prior to permitting

The original permitted area (7 acres) was a forested hillside with trap rock glades.

A description of the area covered under this permit expansion (117 additional acres) is as follows:

As can be seen on the attached topographic mine plan map, from the existing pit to the North (the area of pit advancement) is a sloping hillside with an approximate slope of 16%. This area is lightly forested with a mixture of species of deciduous trees and glades of trap rock outcroppings. The ridge begins to crest approximately 1000 feet to the north of the existing pit. (Elevation increases to the north)

From the existing pit area to the west, the ridge drops off at approximately the same slope as to the north (16%). This area too, is lightly forested, and it is our intention to utilize this area to store spoils as shown on the attached map.

Soil types in the expanded permit area consist of Irondale extremely stony silt loam (25F), which varies in thickness from 4" to several feet, as described in the St. Francois County Soil Survey. In order to mine the area directly north of the current pit, it will be necessary to remove 30 to 40 feet of overburden. However, 350 feet north of the pit, it appears that the amount of overburden will be reduced to 4 or 5 feet.

The property at Iron Mountain has been mined continuously since the early 1800's. Early on in the iron mining operations, a technique known as hydraulic mining was employed. It is quite possible that the overburden immediately to the north of the pit was placed there as a result of hydraulically mining Iron Mountain as overburden depths as previously mentioned are not typical on the rest of the property.

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B. SPOIL

DESCRIBE METHODS AND LOCATION OF SPOIL PLACEMENT AND DISPOSAL

For Locations, see attached mine plan map. Spoil will be placed with rubber tire Scrapers, dozers, and/or highlift and truck.

C. ACID MATERIALS

DESCRIBE METHODS AND EQUIPMENT USED FOR HANDLING ACID MATERIALS (IF NONE IS ANTICIPATED, WRITE "NONE" BELOW)

Irondale silty loam can be slightly acidic as described in the St. Francois County Soil Survey. If acidic soils are encountered, they will be stockpiled such that run-off can be contained in an old mining pit (pre-law) and they will be seeded immediately after stockpiling, and in accordance with 10CSR 40-10.050(5)(C)1.

D. PIT INFORMATION (GIVE ALL DIMENSIONS IN FEET)

DESCRIBE LOCATION AND ORIENTATION OF PIT, IF NOT CLEAR ON SITE MAPS

Refer to site maps

YES NO

☐ YES ☒ NO Will any excavation be at or within fifty feet (50') of the right-of-way of any public road?

☐ YES ☒ NO Will any highwall consisting of unconsolidated materials be left within fifty feet of the right-of-way of any public road? (NOTE: For unconsolidated materials left in place, a slope of no more than forty degrees may start near the right of way, and in no case may the excavation be closer to the right of way than fifty feet or twenty-five feet plus one and one-half (1-½) times the depth of unconsolidated material, whichever is greater, unless a variance is granted by the Commission.)

☐ YES ☒ NO Will any excavation start at or within fifty feet (50') of any property line? (NOTE: If the answer is "yes", a safety barrier may be needed.)

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RECLAMATION PLAN - 10 CSR 40-10.020(2)(D)2.

A. REVEGETATION (Attach additional sheets, if needed)

REVEGETATION MIX #1

PURPOSE OR LAND USE

Wildlife

MISSOURI LAND

RECLAMATION COMMISSION

B. SEEDING OR PLANTING TIME

Spring and Fall

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

Level and grade with dozer, disc with tractor, fertilize and seed.

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

SEEDED SPECIES	POUNDS/ACRE	TREE OR SHRUB SPECIES	STEMS/ACRE
Wheat	20		
Barley	20		
Timothy	7		
Clover	8		

REVEGETATION MIX #2

PURPOSE OR LAND USE

B. SEEDING OR PLANTING TIME

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

SEEDED SPECIES	POUNDS/ACRE	TREE OR SHRUB SPECIES	STEMS/ACRE

ATTACH ADDITIONAL SHEETS FOR ADDITIONAL SEED MIXES.

DESCRIBE PROPOSED RECLAIMED TOPOGRAPHY, INCLUDING SLOPES

Refer to Exhibit B

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C. DESCRIBE THE GENERAL SEQUENCE AND TIMING OF THE FOLLOWING ACTIVITIES

GRADING

Grading will occur year round, as needed, as the pit advances. Final grading will be completed within one (1) year of permit expiration and in accordance with 10CSR 40-10.050(10)(A)

REPLACEMENT OF TOPSOIL

Topsoil will be replaced within one (1) year of permit expiration and in accordance with 10CSR 40-10.050(10)(A)

REVEGETATION

All topsoiled areas will be seeded during or before the first spring following topsoil replacement in in accordance with 10CSR 40-10.050(10)(B)

AVERAGE DEPTH OF REPLACED TOPSOIL (INCHES)

12" PHONE CALL W/ DM 7-6-99 WSE

D. USE OF LAND WHEN RECLAIMED

Estimate acreage of each land use below, after reclamation

ESTIMATED ACRES:

Wildlife (forest or other habitat with livestock excluded)

69

Agricultural (pasture, cropland, and horticultural)

Development (residential, industrial, and recreational)

Water impoundments (for wildlife, agricultural, or development)

55

EXHIBIT B

Post Mining Property Description

Upon completion of mining operations, the total pit area will be 110 acres and the total distance from the top of the highwall to the pit floor will vary in depth from 25 to 250 feet. We will maintain a 20 foot wide bench, for every 50 feet of bench height such that the quarry face will "step" into the hillside. The remaining 14 permitted acres which contained spoils and stockpiled topsoil will be regraded such that they can be traversed by modern farm machinery..

The rim of the pit area will be graded such that a 3:1 dirt slope can be maintained. The 110 acre pit lies very close to the center of the property which consists of 1643 acres, therefore, pit advancement will not approach current property lines. Approximately ½ or 55 acres of the pit will be of sufficient depth to hold water making a recreational water impoundment. The remaining 55 acres of the pit will remain bare rock floor.

All spoil disposal areas will be covered with topsoil to establish vegetative cover. Topsoil is limited in the area, however, spoil pile sizes will be limited such that they can be covered with 1 foot of topsoil.

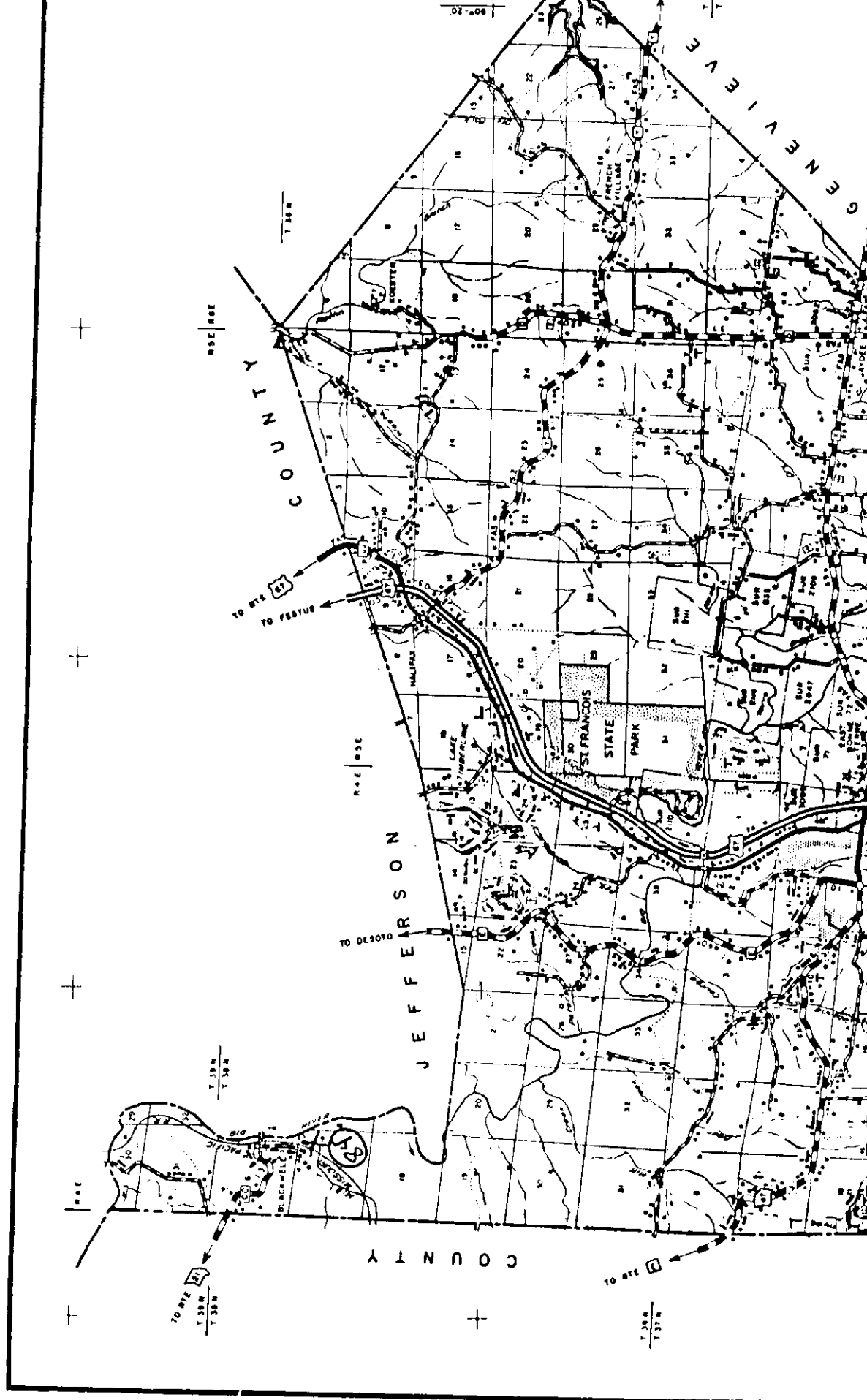
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By my signature, I attest to the following:

1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
2. I or the company I am authorized to represent intend(s) to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Sections 444.760 through 444.789, RSMo ~~§§~~ and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
3. I have obtained the approval of all landowner's for all proposed post-reclamation land uses.
4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and further where I have no such right, I have attached signed affidavits from the landowners, granting such access.

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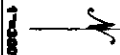
SIGNATURE OF APPLICANT <i>Joseph K. Wells</i>		TITLE Vice President	DATE 6-21-99
NOTARY PUBLIC DISCRESSER SEAL	STATE Missouri	COUNTY (OR CITY OF ST. LOUIS) <i>St. Louis County</i>	
	SUBSCRIBED AND SWORN BEFORE ME, THIS 21 DAY OF June 19 99		USE RUBBER STAMP IN CLEAR AREA BELOW TRACY K. OETKER NOTARY PUBLIC-STATE OF MISSOURI ST. CHARLES COUNTY MY COMMISSION EXPIRES MAY 12, 2000
	NOTARY PUBLIC SIGNATURE <i>Tracy K. Oetker</i>	MY COMMISSION EXPIRES 5-12-00	
	NOTARY PUBLIC NAME (TYPED OR PRINTED) Tracy K. Oetker		
APPROVED BY (DIRECTOR'S REPRESENTATIVE) <i>William S. Zeman</i>		DATE APPROVED 7-20-99	PERMIT NUMBER 0528



N 8000



Customer Reference: 1201228/226
Scale: 10'
Survey: Fred Weber, Inc.
Note: Detailed construction site specifications
include: topography, soil analysis, utility locations,
in addition to topographic survey, please see Survey Report
for a detailed description of survey methodology.
Survey Station: 2 North, 10 West



17-2000

N 7000

E 12000

E 13000

E 14000

**Iron Mountain Trap Rock Company
Land Reclamation Plan
A Tract of Land in Section 30 & 31,
Township 35 N, Range 4 E, St.
Francois County, Missouri**
Revised 5-20-00 Revised 7-7-00
T.M.A. Revised 2-3-00
Revised 4-4-01
Post Mining Land Use
69 Acres - Wildlife
85 Acres - Water Impoundment
124 Acres Long Term Limit
Acres added 1990 - 17 Acres
Acres Added 2000 - 10 Acres
Acres Added 2004 - 20 Acres

↑ Approx. 4000 feet to
Paul Black Property ↑

